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RECEIVED

JAN 16 2003

TECH CENTER 1600/2900

January 13, 2003

*Via Federal Express*

Susan D. Coe, Examiner  
Attn: Group 1600, 7<sup>th</sup> Floor Reception  
United States Patent and Trademark Office  
Crystal Mall 1  
1911 South Clark St.  
Arlington, VA 22202

Re: *U.S. Patent Application Serial No. 10/021,970 entitled "Compositions Containing  
Beta-Glucan and Lactoferrin and Their Use"*  
*Our Ref.: 13479.0002.CPUS01*

Dear Ms. Coe:

Enclosed is a graphic prepared by our client explaining the non-obviousness of the claimed compositions.

Please call me when you have had a chance to review the graphic. I intend to file a response to the October 21, 2002 Office Action by January 21, 2003, and would like it to place the claims in the best possible condition.

Very truly yours,

Christopher J. Buntel, Ph.D.

CJB:mn  
Enclosure

# Synergistic Effect of Compositions Comprising Beta glucan & Lactoferrin

**The Instant Invention Promotes the Efficacy  
of each Ingredient and Mitigates the Detriments**

## 1<sup>st</sup> Ingredient

**Properties  
of  
Beta glucan**

**Macrophage  
Activation**

**Promotes  
TNF-Alpha  
Production**

**Promotes  
TNF-Alpha  
Production**

**Promotes  
IL-6  
Production**

**Over-activate  
the Immune  
System**

Novelty of Interaction is to allow Long-Term  
Sustained Benefits through Daily Use  
of Each Ingredient without  
the Negative Side-Effects

Activated Macrophages  
& Increased Neutrophils  
for Effective Elimination  
of Bacterial, Viral, or  
Fungal Insults

Helps to Balance TNF-Alpha Production.  
Decreases in TNF-Alpha Production Exposes the  
Host to an Increased Risk of Cancer Growth

Helps to Balance TNF-Alpha Production.  
Increases in TNF-Alpha lead to Chronic  
Inflammation and Promote Disease Processes.

Interleukin 6 Promotes  
Inflammation thereby  
Impairing Repair  
of Vital Tissue

Balance is achieved  
when the two  
ingredients are

## 2<sup>nd</sup>

## Ingredient

**Properties  
of  
Lactoferrin**

**Neutrophil  
Proliferation**

**Inhibits  
TNF-Alpha  
Production**

**Inhibits  
TNF-Alpha  
Production**

**Inhibits  
IL-6  
Production**

**Immune  
System  
Modulation**

## Legend

☐ Positive Benefit

☐ Negative Side-Effect